Sex is a delicate subject that is often difficult to talk about with healthcare professionals. This information is for adults with cystic fibrosis (CF) who are interested in learning more about sexual health issues including:

- Fertility and the reproductive system
- Practical advice about sex
- Contraception and sexually transmitted infections
- Fungal vaginitis
- Stress incontinence
“Everyone's journey to becoming a parent is different. As an adult living with CF, mine involved a lot of heartbreak, patience, and perseverance. I am so fortunate and grateful that my story ended with two healthy boys that absolutely light up my life. It's hard to describe how much joy and love they bring on a daily basis. Don't give up hope; with the right support before and after children come into your life, having a family is a dream that can be fulfilled.”

Megan Parker, Calgary, Alberta

Fertility and the reproductive system

In both men and women, the reproductive system is regulated by sex hormones (progesterone, estrogen, and testosterone). The level of hormones in people with cystic fibrosis is entirely normal. Consequently, adults with cystic fibrosis can enjoy a perfectly normal sex life. However, since cystic fibrosis affects mucus viscosity, fertility may be affected.

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If you have a child, he/she will carry the gene responsible for cystic fibrosis. Your partner can be tested to determine whether he/she is a carrier of the gene responsible for cystic fibrosis. Carrier testing would help predict whether your child will be a carrier, or is at risk of having cystic fibrosis. Meeting with a genetic counselor may be helpful when making a decision about having children.
In women

In women with cystic fibrosis, vaginal mucus is often thicker than in women without cystic fibrosis, making it more difficult for the sperm to travel and for fertilization to take place. It often takes longer for women with cystic fibrosis to become pregnant, although this in no way affects the pregnancy itself or the fetus (85 percent of couples conceive within the first twelve months after stopping contraception).

Sometimes it is advisable to consult a fertility expert if you are having difficulty conceiving. Tests may be performed to determine the cause of infertility. Depending on the case, some of the following options may be available:

Insemination

Sperm are inserted into the cervix (intracervical insemination) or directly into the uterus (intrauterine insemination). This technique is used when vaginal or cervical mucus is too thick and prevents the sperm from reaching the fallopian tubes. This technique may be used in combination with ovarian stimulation.

In vitro fertilization

First, women must take hormones to stimulate egg production in the ovaries. Once the eggs are mature, they are retrieved from the ovaries. The male partner produces a sperm sample on the same day. The sperm is used to fertilize the eggs and produce (an) embryo(s). Usually, a maximum of three embryos are transferred to the uterus, three to five days after egg collection. Medication is taken to increase the chances of implantation in the uterus.

In men

Most men with cystic fibrosis are infertile. Sperm are produced normally, but a blocked or absent vas deferens (the tube connecting the testis to the ejaculatory duct) may prevent the passage of sperm to their intended destination. To be tested for infertility, you will be asked to produce a sperm sample.

The sperm will be counted and you will be notified of the results within a few days. Often two sperm tests will be required.
Thanks to reproductive technologies, sperm can be extracted from the epididymis (fine tubules behind the testis) by procedures such as micro epididymal sperm aspiration (MESA), or testicular sperm extraction (TESE), or percutaneous epididymal sperm aspiration (PESA). Sperm are collected during an operation, generally done under local anesthesia. Once collected, a single sperm is injected directly into the egg through intracytoplasmic sperm injection (ICSI). This procedure is done in combination with in vitro fertilization. Men with cystic fibrosis are perfectly able to have normal sexual relations. The ability to have an erection and to ejaculate is unaffected. Although some men with cystic fibrosis may produce less ejaculation, or none at all, and the semen may be clearer than normal, possibly even transparent.

**Practical advice**

Sex is an essential part of life, regardless of age, sex, health or physical ability. Cystic fibrosis does not diminish sexual desire or the need to be intimate with your partner. Moreover, sex is a wonderful source of relaxation, pleasure and fulfillment. Some individuals with cystic fibrosis, especially those whose lungs are more seriously affected, worry about shortness of breath or hemoptysis (the expectoration of blood or bloodstained sputum).

During sex, the average heart rate is 117 beats per minute. When you walk or climb stairs, your heart rate can go as high as 107 to 130 beats per minute. So, if you feel fine after climbing two flights of stairs or doing a comparable activity, you are physically fit enough to have sex without worrying about shortness of breath.

*The following practical advice will help you fully enjoy your sex life:*

- Avoid anything that may aggravate your symptoms, such as perfumes, cigarettes and other strong-smelling products.
- Use your short-acting bronchodilator (Ventolin®, Brycanyl®, Berotec®, etc.) 20 to 30 minutes before having sex.
- Do your physiotherapy exercises to dislodge mucus prior to having sex.
- Adopt positions that require less energy and that do not put pressure on your chest. Use pillows to support your back. If necessary, let your partner play a more active role.
Although most men with cystic fibrosis are infertile, they are not protected from sexually transmitted infections. Women must use contraceptives if they do not wish to become pregnant and they must have protected sex since they are also at risk for contracting sexually transmitted infections.

There are several different types of contraceptives, including:

- **Condom**: When used correctly, it is a highly effective means of birth control and provides protection against sexually transmitted infections almost 100 percent of the time.

- **Female condom**: Similar to the traditional male condom, but inserted into the vagina, it also offers highly effective birth control and sexually transmitted infection protection.

- **Birth control pill**: If used properly, it is very effective in preventing pregnancies, but does not offer any protection against sexually transmitted infections. Its effectiveness may be decreased when certain antibiotics are taken.

- **Depo-Provera™**: Delivered by an intramuscular injection every three months. It is NOT recommended for women with cystic fibrosis because it increases the risk of osteoporosis, a condition to which individuals with cystic fibrosis are already predisposed.

- **Vaginal Contraceptive Ring**: An effective once-a-month form of birth control, the ring is inserted every three weeks — with one week-ring-free period — and is effective when used properly. The ring works similarly to an oral pill, not offering protection against sexually transmitted infections, and can be affected with use of certain antibiotics.

- **Transdermal Patch (Evra®)**: An effective once-a-week birth control patch that works on the same principles as the pill. Like the pill it does not offer protection against sexually transmitted infections, and its effectiveness may be decreased when certain antibiotics are taken.

- **Intrauterine device (IUD)**: A highly effective device that is inserted into the uterus by your gynecologist or family doctor, and can remain there for several years. It does not protect against sexually transmitted infections.

- **Diaphragm**: A device that prevents sperm from entering the uterus, it should be used in combination with a spermicidal cream or jelly. It offers no protection against sexually transmitted infections.

Because of the risk of side effects and potential interactions with your cystic fibrosis medications, talk to your doctor to find the best contraceptive for you.

For more information about birth control and sexually transmitted infection, visit [www.sexualityandu.ca](http://www.sexualityandu.ca), or talk with your CF clinic team.
Fungal vaginitis is an infection of the vagina caused by Candida albicans. This micro-organism grows in warm, moist regions, especially skinfolds and mucus, and is normally found in the mouth, throat, large intestine and vagina. Women with cystic fibrosis are very likely to suffer from fungal vaginitis because certain antibiotics, such as penicillin (e.g., amoxicillin, cloxacillin), cephalosporins and tetracyclines, as well as corticosteroids (prednisone) disrupt the vagina’s normal acidity and bacterial flora. Signs and symptoms of fungal vaginitis include itching, irritation and discomfort, pain during intercourse, and pain during urination. These symptoms are more severe prior to menstruation and are more difficult to treat during pregnancy.

In men, symptoms of a Candida infection are lesions on, or irritation of the penis and itching. Men may occasionally have symptoms, while their partner has none. Fungal vaginitis is usually treated with antifungal cream or suppositories for up to seven days. Sometimes, in the case of a serious infection that seems to be resistant to creams, oral medication may be required for a longer period of time. Some over-the-counter antifungal creams are available at pharmacies. Before deciding to use any of these creams, you should consult a specialist the first time any symptoms appear. There are other types of vaginitis with similar symptoms for which different treatments are recommended.

Some healthcare professionals recommend eating yogurt that contains live bacterial cultures (such as probiotics) when taking antibiotics. These bacteria may enable the body to re-establish its bacterial flora, thereby preventing further infection. Women who experience fungal vaginitis should schedule an annual examination with a gynecologist or family practitioner. Although symptoms may not be present in cases of chronic infections, treatment is required. A visit to your doctor is also a good opportunity to discuss methods of contraception, make safe-sex practices, and to have a PAP smear test to screen for cervical and uterine cancer.
**Stress incontinence**

Women with cystic fibrosis often experience stress incontinence. This type of incontinence is defined as an involuntary discharge of urine caused by a sudden increase in abdominal pressure, as a result of coughing, for example. Fortunately, there are exercises that can help control this type of incontinence.

**Kegel exercises**

Kegel exercises help strengthen the pelvic floor muscles which support the uterus and bladder. Pelvic floor muscle training can help reduce stress incontinence. *Some examples of Kegel exercises are:*

- Contract and relax the your pelvic floor muscles for three seconds, and repeat. If it is too difficult at first, hold for two seconds to increase the strength of the muscle
- Contract and relax the muscles as quickly as possible
- Contract the muscles gradually. Hold the contraction for a few seconds and then gradually relax

There is one side effect: some women have reported increased pleasure during sex after doing the exercises for six weeks.

For more exercises or instructions, speak with the physiotherapist at your cystic fibrosis clinic.

**How can I connect with other Canadians with cystic fibrosis?**

Join the My CF Canada Network, Canada’s first-ever social network designed by CF patients specifically for CF patients to connect and share important information about living with this severe and potentially fatal genetic disease. Canadians with cystic fibrosis can discuss the treatments, programs and services available in their province/region, via video chat and instant message, share stories and personal issues, and receive support for advocacy and fundraising initiatives from a much broader community.

Cystic Fibrosis Canada acknowledges Novartis Pharmaceuticals Canada Inc. for the collaboration that has made the My CF Canada Network possible.

**Sign-up today at www.mycfnetwork.com**

**For more information about cystic fibrosis, visit cysticfibrosis.ca**

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